

20 October 2005

Mr. Stacin Martin
CH2M Hill
5700 Cleveland Street, Suite 101
Westmoreland Building
Virginia Beach, VA 33462

**RE: Letter Report for the 2nd 400+ Acre Flora and Fauna Survey, Vieques, Puerto Rico
under Navy CLEAN III Program, Contract Number N62470-02-D-3052; PO Number
908165**

Dear Mr. Martin:

Geo-Marine, Inc. (GMI) was contracted by CH2M Hill to conduct the remaining 444.13 acre (ac) flora survey, with 100% coverage, on the former Vieques Naval Training Range (VNTR) on Vieques, Puerto Rico. The purpose of the flora survey was to identify federal and state listed endangered, threatened, critical, sensitive species or new species within the remaining 444.13 ac on the former VNTR. In addition to the flora survey, an avian species habitat evaluation for endangered and migratory bird species habitat, species never reported at the VNTR, threatened, critical or sensitive species. GMI also performed a species specific habitat evaluation for the brown pelican (*Pelecanus occidentalis*), roseate tern (*Sterna dougallii*) and least tern (*Sterna antillarum*) survey to identify potential habitat and nesting occurrence, concurrently with the flora survey.

GMI staff and contract personnel conducted 100% coverage surveys for federal and state endangered, threatened, critical, sensitive species or new species, the brown pelican, roseate tern, and the least tern. The team participating in the survey was trained in plant and bird species identification before beginning the surveys. Flora and fauna surveys were conducted for 16 days from August 15, 2005 through August 31, 2005. During this period three to four biologist were involved in the daily surveys. Species identified in the field by biologists were compared to the United States Fish and Wildlife Service (USFWS) Endangered Species List for Puerto Rico/Virgin Islands and the Puerto Rico Department of Natural Resources (DNER) Critical Elements Listing.

GMI established 41 transects within the remaining 444.13 ac. Each transect was 200 feet (ft) wide, numbered 285 through 485, ran north to south, and from coast to coast (**Figure 1**). Each 200 ft transect line had a corresponding GPS transect point numbered from 28a through 45. The floral, brown pelican, roseate tern, and least turn surveys began along the north road, at transect line 285 and transect GPS point 28a, of the Live Impact Area (LIA) and proceeded north, south, and eastward. The observers walked parallel transects about 50 ft apart to survey the area. Dense vegetation, rugged terrain, thorny vines, hornets, wasps, and bees, live submunitions, large pieces of live ordnance, fragments, and shrapnel required slow walking with frequent stops to clear a path, observe surrounding vegetation, and monitor bird activity. Uniform pedestrian survey coverage of the area was attempted; however, observers occasionally deviated from the transect lines because of vegetation density and ordnance. GMI was unable to survey 203.02 ac because of the dense vegetation, live submunitions, other live ordnance, and the UXO team leader's safety assessment of the area (**Figure 2**).

Federal and State Listed Endangered, Threatened, Critical, or Sensitive Plant Species

Several terrestrial plant species that could potentially occur on Vieques are federally listed as protected by U.S. Fish and Wildlife Service (USFWS). The four endangered plant species of primary concern occurring on Vieques are Thomas' lidflower (*Calyptranthes thomasiana*), *Chamaecrista glandulosa* var. *mirabilis*, and *Eugenia woodburyana* (USFWS 2005). The threatened plant species is cobana negra

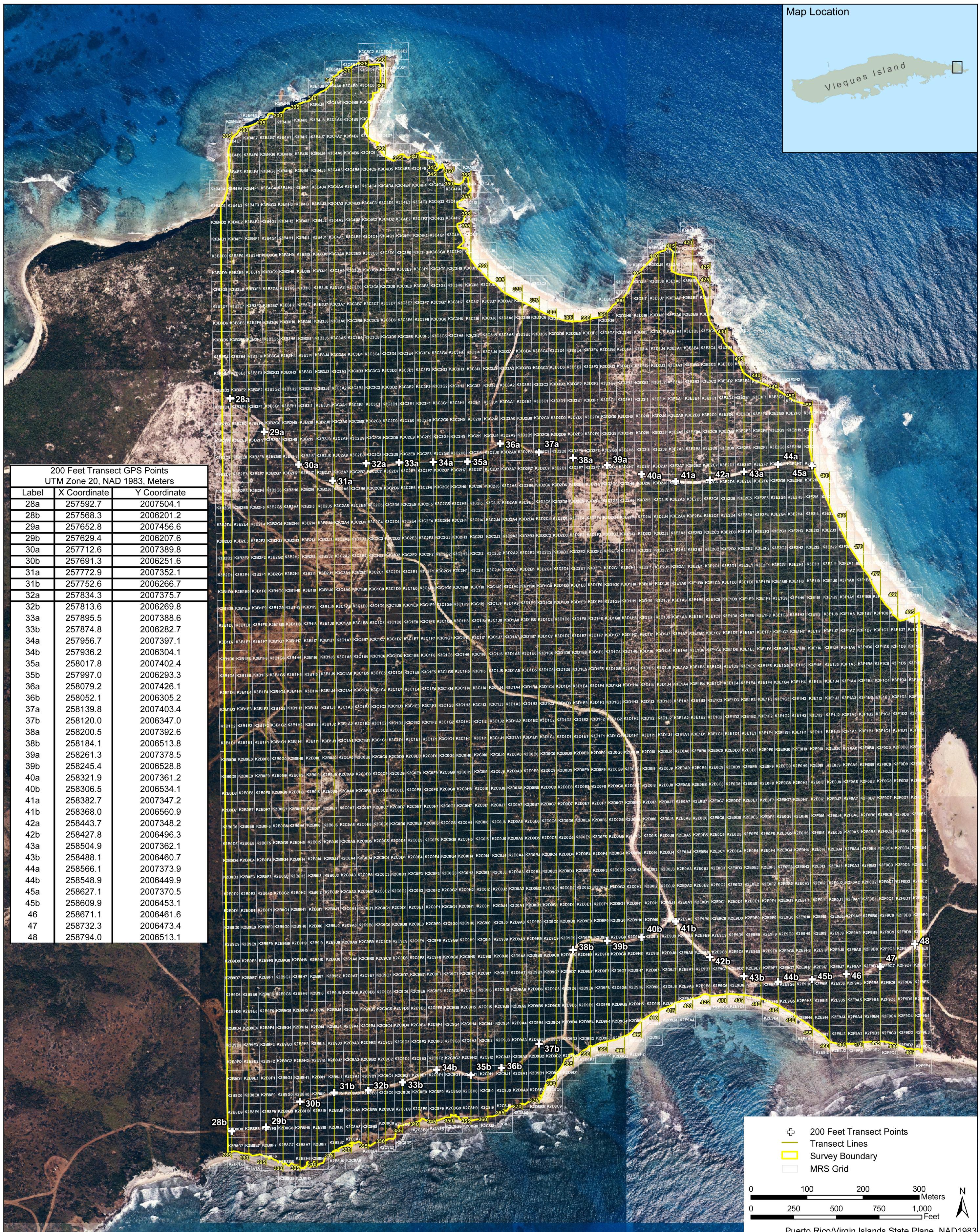


Figure 1. The Second 400+ Acre Flora and Fauna Survey Area within the Former Live Impact Area, Vieques, Puerto Rico.



Figure 2. Areas Surveyed and Areas not Surveyed within the former Live Impact Area, Vieques, Puerto Rico.

(*Stahlia monosperma*). Beautiful goetzea (*Goetzea elegans*) had not previously been recorded on Vieques; however, seven locations for the plants were found during GMI's September 2000 surveys along the quebradas on the western end of Vieques. Due to the lack of appropriate habitat it is highly unlikely that beautiful goetzea would occur in the LIA.

Thomas' lidflower is a small evergreen tree/shrub in the Myrtaceae (myrtle) family. Thomas' lidflower is normally found in the moist deciduous formation of the inner hills and slopes that include semi-evergreen forests. This forest type is characterized by trees that are 10 to 15 m (30 to 45 ft) in height, of which one-third to one-half are deciduous. A lower strata with epiphytic orchids and vines is present. This plant may reach 30 ft (9 m) in height and 5 inches (13 centimeters [cm]) in diameter. Its leaves are opposite, obovate to oblong, blunt at the apex, and short pointed at the base. The leaves are shiny on the upper surface, and dull on the lower surface, and have gland dots. Flower buds are obovoid, apiculate and 0.1 inches (3 mm) long while the flowers have four small, spatulate petals. The fruit has not been described (USFWS 1997).

It is unlikely that Thomas' lidflower would occur in the LIA due to lack of the appropriate habitat. Thomas' lidflower is reported to grow within dense semi-evergreen forests on mountains at 300 ft to 800 ft (91 to 244 meters) altitude (Little and Woodbury 1980). The highest altitude at the former VNTR is 453 ft (138 meters) at Monte Jalobra—formerly Observation Post-1 [OP-1]). The habitat at Monte Pirata on the western side of the island is more suitable for this plant and 10 to 12 plants have been reported as occurring there (USFWS 1989). During the May 2005, 450 ac surveys, GMI did not locate any of this species within the LIA.

Chamaecrista glandulosa was listed as endangered in 1990 and is extremely rare within its range. This small legume/shrub is endemic to white silica sands along the northern coast of Puerto Rico. Once common, it now is restricted to one area in Dorado and one area in Vega Alta. Scattered populations are present along the southern shore of Laguna Tortuguero (USFWS 1994a). The sands where *Chamaecrista glandulosa* occurs on the north coast are between Vega Baja and Manatí at near sea level elevation. The soils belong to the Algarrobo-Corozo-Arecibo soil association, which are deep, excessively drained, fine sands. At Laguna Tortuguero, *Chamaecrista glandulosa* is found growing on almost pure sands, with no organic layer, and frequently in open areas. *Chamaecrista glandulosa* is a prostrate, ascending or erect shrub up to 3.3 ft (1 meter) in height. Its branches are slender, straight, and wire-like. The leaves are alternate, evenly one-pinnate, 0.4 to 1.2 inches (1 to 3 cm) long, 0.2 to 0.4 inches (0.5 to 1 cm) wide, and have some scattered whitish hairs. The stipules are persistent, striate, and about 0.8 inches (2 mm) long. The leaflets are mebranaceous, usually in 18 pairs, 0.1 to 0.2 in (3 to 6 mm) long and 0.02 to 0.06 inches (0.5 to 1.5 mm) wide. Its flowers are solitary and have a yellow corolla. Mature fruits (legumes) are flat and 1 to 1.6 inches (2.5 to 4 cm) long, with 12 to 15 seeds (USFWS 1994a).

Because *Chamaecrista glandulosa* var. *mirabilis* occurs in open, sandy areas, potential suitable habitat exists for this plant within the LIA. A historical record indicated that *Chamaecrista glandulosa* had been collected near Bahía Corcho by Dr. George Proctor; however, Bahía Corcho was intensively surveyed in 1996 for the plant and none were found (GMI 1997). In addition, GMI conducted surveys in 2000 along the south coast outside the LIA and along the western coast did not reveal any plants of this species. During the May 2005, 450 ac 100% coverage surveys, GMI did not locate any of this species within the LIA.

Eugenia woodburyana, no common name, is a small evergreen tree in the Myrtaceae family and is endemic to southwestern Puerto Rico. There are approximately 150 individuals known from a range of hills (Sierra Bermeja) in the municipalities of Cabo Rojo and Lajas, and from the Guánica Commonwealth Forest. *Eugenia woodburyana* was listed as an endangered species in 1994 (USFWS 1994b, 1998) and has been included in the Center for Plant Conservation's Report on Rare Plants in Puerto Rico as taxa, which may become extinct within the next 10 years. It is also considered to be a critical plant by the Natural Heritage Program of the Puerto Rico DNER (USFWS 1994b). *Eugenia woodburyana* is found in subtropical dry forest zones, which are either deciduous or semi-evergreen seasonal forests (Puerto Rico Conservation Foundation 1999; USFWS 1998). Extensive areas of this forest type overlie limestone. The deciduous forest consists of tree and shrub strata in which the trees may reach 33 ft (10 m) in height.

Soils in the semi-evergreen forests retain greater moisture and the trees are somewhat taller (Puerto Rico Conservation Foundation 1999). Vegetation in the subtropical dry forest zone forms a complete ground cover, leaves are succulent, and spiny and thorny species are common. Trees are usually no more than 49 ft (15 meters) in height with crowns broad, spreading, and flattened. *Eugenia woodburyana* may reach 20 ft (6 meters) in height. The leaves are opposite, obovate, pilose on both sides, with glandular dots below, and from 0.6 to 0.8 inches (1.5 to 2 cm) long and 0.4 to 0.8 inches (1 to 1.5 cm) wide. The calyx is 4-lobed and the petals are white. The fruit at maturity is red, 8-winged, and 0.8 inches (2 cm) in diameter (USFWS 1998).

It is highly unlikely that *Eugenia woodburyana* would occur in the LIA due to the lack of appropriate habitat. If appropriate habitat were present, this plant would most likely occur on steep hillsides along the southern coast and central portions of the LIA, or along the quebradas in the north. Previous surveys have determined that this plant is not present along the southern coastal areas. In 1996, five *Eugenia woodburyana* individuals were observed on the steep, southwest slope of Monte Pirata on the western side of the island—the highest altitude in the former VNTR is 453 ft [138 m] at Monte Jalobra, the location of OP-1. During the May 2005, 450 ac surveys, GMI did not locate any of this species within the LIA.

Cobana negra was listed as threatened in 1990. This medium-sized evergreen tree of the legume family occurs in coastal woodlands of the eastern and southern districts of Puerto Rico, on Vieques, and on Hispaniola (Liogier 1999). The largest known population is in southwestern Puerto Rico near Boquerón and contains 23 mature trees and 35 seedlings. Cobana negra usually grows in brackish, seasonally flooded wetlands in association with mangroves. Its associates are ucar (*Bucida buceras*), black mangrove, white mangrove, and buttonwood. Plants are also found on pasturelands adjacent to mangrove forests. Nearly all of the known trees are growing at the edge of salt flats or shallow lagoons that are inundated during the wet season. Although cobana negra trees are usually found adjacent to black mangrove stands, they are limited to the drier, slightly elevated soil not occupied by mangroves (USFWS 1990). Cobana negra can reach 8 to 53 ft (2.4m to 16 m) in height and 1 to 1.6 ft (0.3 to 0.5 m) in diameter. The plant has pinnately compound, alternate leaves comprised of six to 12 opposite leaflets with scattered black dots or glands on the lower surface. Yellow flowers are produced between March and May. Fruits are approximately 0.8 inches to 1.2 inches (2 cm to 3 cm) in diameter and have a single, large seed surrounded by a red, fleshy covering. Seeds are normally dispersed by animals and germinate following burial and recession of surface water (USFWS 1995).

There are three known populations of cobana negra on Vieques totaling about 48 individuals. It is found on Vieques near Laguna Yanuel (Ensenada Honda) and Laguna Kiani, both Class I conservation zones (GMI 1996). The first site on the west side of the island in the conservation zone at Laguna Kiani has historically had one to three mature individuals of cobana negra. The trees are approximately 246 ft (75 m) away from the road in a transitional area between salt-sand flats and thick thorn scrub. Nearby vegetation consisted of bastard gregre (*Ginoria rohrii*), mesquite, acacias, black mangrove, and buttonwood (GMI 1997).

The second site consisting of approximately 18 individuals was reconfirmed at a location along the northwest shoreline. This population has been known about for sometime but has not been reported in the literature. The population occurs on the east end of a mangrove community at the edge of a dense forest in a transitional area between salt-sand flats and thick thorn scrub. It appears that these plants are offshoots from a mature plant that was blown down in a hurricane (probably Hugo). The plants are in several rows that radiate from the parent plant. No flowers or fruits were observed on any of the plants. The most common species near the cobana negra are Bastard gregre, mesquite, acacia trees (*Acacia farnesiana* and *Acacia macracantha*), black mangrove, buttonwood, and white mangrove (Wilkinson and Cubiñá 2000).

The third population located at Yanuel Laguna in the former VNTR is represented by at least 20 individuals. The site is in the transitional area between mangrove forest and the upland forest north of the Lagoon. Bastard gregre, a species associated with cobana negra around Laguna Kiani on western Vieques, also occurs in the upland forest of Laguna Yanuel. Other species present were buttonwood,

mesquite, box brier, ucar, almacigo, black mamboo (*Guapira fragrans*), and caper tree (*Capparis flexuosa*).

With the verification of the population along the northwest shore of Vieques in September 2000, there are now three confirmed cobana negra sites found on Vieques, none of which are in the LIA. The total number of plants at the three locations is in excess of 48 individuals. However, the age structure of these populations is dominated by older individuals or by plants reproducing by vegetative propagation. No flowers, fruits, or young plants were observed at any of the three locations (Wilkinson and Cubiñá 2000).

Only a small area of potential cobana negra habitat exists within the former VNTR. All potential habitats within the LIA have been searched on foot or by helicopter. Surveys conducted by GMI in November 2000, January 11-13, 2001, and August 15-31, 2005, found no plants present within the LIA.

In addition to the floral species above, **Table 1** outlines the federal and state endangered and threatened plant species that were surveyed for during August 15-31, 2005 field effort. There were no federal or state listings for critical or sensitive plant species.

Table 1
Federal and State Listed Plants

| Family Name | Scientific Name | Common Name | Status | |
|------------------------------|--|-----------------------------------|---------|-------|
| | | | Federal | State |
| Pteridaceae | <i>Adiantum vivesii</i> | Puerto Rico maidenhair | | E |
| Cyatheaceae | <i>Alsophila amintae</i> | forest alsophila | | E |
| <i>Cyathea dryopteroides</i> | | | | E |
| Poaceae | <i>Aristida chaseae</i> | Chase's threeawn | | E |
| Poaceae | <i>Aristida portoricensis</i> | pelos del diablo | | E |
| Rhamnaceae | <i>Auerodendron pauciflorum</i> | turtlefat | | E |
| Flacourtiaceae | <i>Banara vanderbiltii</i> | Vanderbilt's palo de ramon | | E |
| Buxaceae | <i>Buxus vahlii</i> | Vahl's box | | E |
| Verbenaceae | <i>Callicarpa ampla</i> | caparosa | | E |
| Myrtaceae | <i>Calyptranthes thomasiana</i> | Thomas' lidflower | E | E |
| Fabaceae | <i>Chamaecrista glandulosa</i> (L.) var. <i>mirabilis</i> | Jamaican broom | E | E |
| Verbenaceae | <i>Cornutia obovata</i> | nigua | | E |
| Orchidaceae | <i>Cranichis ricartii</i> | Puerto Rico helmet orchid | | E |
| Bignoniaceae | <i>Crescentia portoricensis</i> | higuero de sierra | | E |
| Thymelaeaceae | <i>Daphnopsis helleriana</i> | Heller's cieneguillo | | E |
| Dryopteridaceae | <i>Elaphoglossum serpens</i> | cerro de punta jayuya | | E |
| Myrtaceae | <i>Eugenia woodburyana</i> | | E | |
| Solanaceae | <i>Goetzea elegans</i> | mata buey | | E |
| Aquifoliaceae | <i>Ilex cookie</i> | te | | E |
| Aquifoliaceae | <i>Ilex sintenisii</i> | Sintenis' holly | | E |
| Orchidaceae | <i>Lepanthes eltoroensis</i> | Luquillo Mountain babyboot orchid | | E |
| Cactaceae | <i>Leptocereus grantianus</i> | sebuscan | | E |
| Ericaceae | <i>Lyonia truncatavar. Proctorii</i> | Proctor's staggerbush | | E |
| Rubiaceae | <i>Mitracarpus maxwelliae</i> | Maxwell's girdlepod | | E |
| Rubiaceae | <i>Mitracarpus polycladus</i> | cana gorda girdlepod | | E |
| Myrtaceae | <i>Myrcia paganii</i> | ausu | | E |
| Icacinaceae | <i>Ottoschulzia rhodoxylon</i> | pincho palo de rosa | | E |
| Piperaceae | <i>Peperomia wheeleri</i> | Wheeler's peperomia | | E |
| Dryopteridaceae | <i>Polystichum calderonense</i> | Monte Guilarte hollyfern | | E |
| Solanaceae | <i>Solanum drymophilum</i> | erubia | | E |
| Fabaceae | <i>Stahlia monosperma</i> | cobana negra | T | |
| Styracaceae | <i>Styrax portoricensis</i> | palo de jazmin | | E |
| Dryopteridaceae | <i>Tectaria estremeriana</i> | Puerto Rico halberd fern | | E |
| Theaceae | <i>Ternstroemia luquillensis</i> | palo colorado | | E |
| Theaceae | <i>Ternstroemia subsessilis</i> | el yunque colorado | | E |
| Thelypteridaceae | <i>Thelypteris inabonensis</i> | cordillera maiden fern | | E |

Table 1 (Cont'd)
Federal and State Listed Plants

| Family Name | Scientific Name | Common Name | Status | |
|------------------|--------------------------------|----------------------------|---------|-------|
| | | | Federal | State |
| Thelypteridaceae | <i>Thelypteris verecunda</i> | Barrio Charcas maiden fern | | E |
| Thelypteridaceae | <i>Thelypteris yaucoensis</i> | Puerto Rico maiden fern | | E |
| Meliaceae | <i>Trichilia triacantha</i> | briaco | | E |
| Asteraceae | <i>Vernonia proctori</i> | Proctor's ironweed | | E |
| Rutaceae | <i>Zanthoxylum thomasianum</i> | St. Thomas pricklyash | | E |

Legend:

E = Endangered

T = Threatened

Source: USDA 2005; USFWS 2005

In addition to the federal and state threatened and endangered species surveys, GMI also surveyed for approximately 595 flora species listed by the Puerto Rico DNER as Critical Elements. Species on the Puerto Rico Critical Elements Listing are not protected unless listed as threatened or endangered by the federal or state government.

Brown Pelican

The brown pelican (*Pelecanus occidentalis*) is classified as a common species, but is listed as endangered by the USFWS in the Greater Antilles, including Puerto Rico. The Brown pelican numbers tend to increase between November and February in Puerto Rico because of an influx of birds from North America (Raffaele et al. 1998). A brown pelican-nesting colony has existed for at least 50 years, south of the LIA, on Cayo Conejo. Nesting occurs from February to October.

Brown Pelican Habitat Suitability

No suitable nesting or foraging habitat occurs within the project area. Suitable nesting habitat occurs only on the island of Cayo Conejo, south of the LIA. Brown pelicans forage in bays and ocean waters adjacent to the project and occasionally fly over the project area to access ocean foraging sites on the north side of Vieques.

Roseate Tern

The roseate tern (*Sterna dougallii*) is uncommon to rare and local in the West Indies. Small breeding colonies are known to occur from the Bahamas south through the Greater Antilles. Roseate terns are primarily present in the West Indies from April to September. Roseate terns nest from May through July. Offshore cays are the preferred nesting habitat of roseate (Raffaele et al. 1998). After nesting roseate terns migrate to the South Atlantic Ocean to winter.

Roseate Tern Habitat Suitability

The project area does not include suitable breeding/nesting habitats (i.e., offshore cays) preferred by roseate tern. Nesting was documented on the Vieques eastern peninsula, within the conservation zone, Punta Este by Oscar Diaz and GMI in June/July 2001. This site is similar to a cay; largely surrounded by water.

Least Tern

The least tern subspecies that occurs in the West Indies, *Sterna antillarum antillarum*, is classified as a common, but a local breeding resident in the Bahamas, Greater Antilles, Cayman Islands, St. Martin, Antigua, and Barbuda. In the Virgin Islands, northeast of Vieques, the least tern is classified as an uncommon local breeder. Least tern is a migratory species that arrives in West Indies in May, nests, and leaves in August to winter south of the study area. Migratory least terns that breed in North American are the same subspecies as those that nest in the West Indies and migrate through the area in September (Raffaele et al. 1998).

The least tern nests in coastal areas, harbors, and lagoons. A scrape in the substrate serves as a nest site. Nesting habitats vary widely and include industrial sites, sand bars, spits with coral rubble, and dried mudflats (Raffaele et al. 1998).

Least Tern Habitat Suitability

Based on a review of aerial photography and the August 2005 field survey, the preferred man-made and natural lagoons habitats do not exist within the project area. Suitable habitat substrates for nesting and roosting least terns, and potential feeding areas were not observed within the project area.

Plant, Brown Pelican, Roseate Tern, and Least Tern Survey Results

No federal or state endangered, threatened, critical, or sensitive species were found August 15-31, 2005, during the flora survey.

Based on the lack of suitable habitat it is highly unlikely that Thomas' lid flower or *Eugenia woodburyana* would be found within the LIA because they usually occur on mountains at higher altitudes than are present on the eastern end of the island.

Previous surveys for *Chamaecrista glandulosa* have been conducted in part of the LIA and most of the southern coastal portion of the Eastern Maneuver Area. During the August 2005, pedestrian survey no *Chamaecrista glandulosa* were found.

Cobana negra is the only plant on the endangered/threatened list that has been confirmed as occurring within the former VNTR. This population consists of over 20 cobana negra individuals at Laguna Yanuel within a conservation zone on the southern coast. Based on the results of the August 2005 survey and former GMI wetland surveys conducted in April 2002, cobana negra is not found in the LIA.

Multiple observations of four (4) plant species listed under the Puerto Rico DNER Critical Elements Listing were recorded in diverse locations during the August 15-31, 2005 (**Attachment A; Figure 3**). The primary distribution of *Lignum vitae* (*Guaiacum officinalis*), candleberry, and *Coccoloba*, occurred in the southern part of the area between transects 310 and 485. Additional *Lignum vitae*, candleberry (*Byrsonima lucida*), and *Coccoloba* sites were observed south Punta Salinas between transects 285 and 305. *Caesalpinia bonduc* was only found along the southern coast near sandy beach sites. These four (4) plant species are Puerto Rico Critical Elements but are not federally protected species.

Two hundred fifty-seven (257) plant species were recorded during the survey between transects 285 and 485 during the August 15-31, 2005 field surveys (**Attachment B**). Among the 257 plant species, a new or hybrid *Coccoloba* species was found in clusters of 50 or more in three locations (**Figure 4**). The first cluster occurred south of transect 310 and southeast of Punta Salinas. The second cluster of *Coccoloba* bordered Playa de Banco to the east along transect 355. The southern most sighting of *Coccoloba* was found between transects 320 and 325.

The brown pelican was not observed within the project area during the August 2005 survey. The 444.13 ac surveyed lacks suitable foraging habitat and the brown pelican nesting habitat occurs only on the island of Cayo Conejo, south of the western point of Bahia Salina del Sur. The brown pelicans forage in bays and ocean waters adjacent to area and occasionally flyover the project area to access ocean foraging sites on the north side of Vieques. The brown pelican's numbers tend to increase between November and February in Puerto Rico, nesting occurs on Cayo Conejo from February to October.

No roseate terns were observed within the 444.13 ac during the August 15-31, 2005, survey. The project area also lacks suitable breeding/nesting habitats (i.e., offshore cays) preferred by roseate tern.

No least terns were observed within the 444.13 ac during the August 15-31, 2005 field survey. The least terns preferred habitats do not exist within the project area.

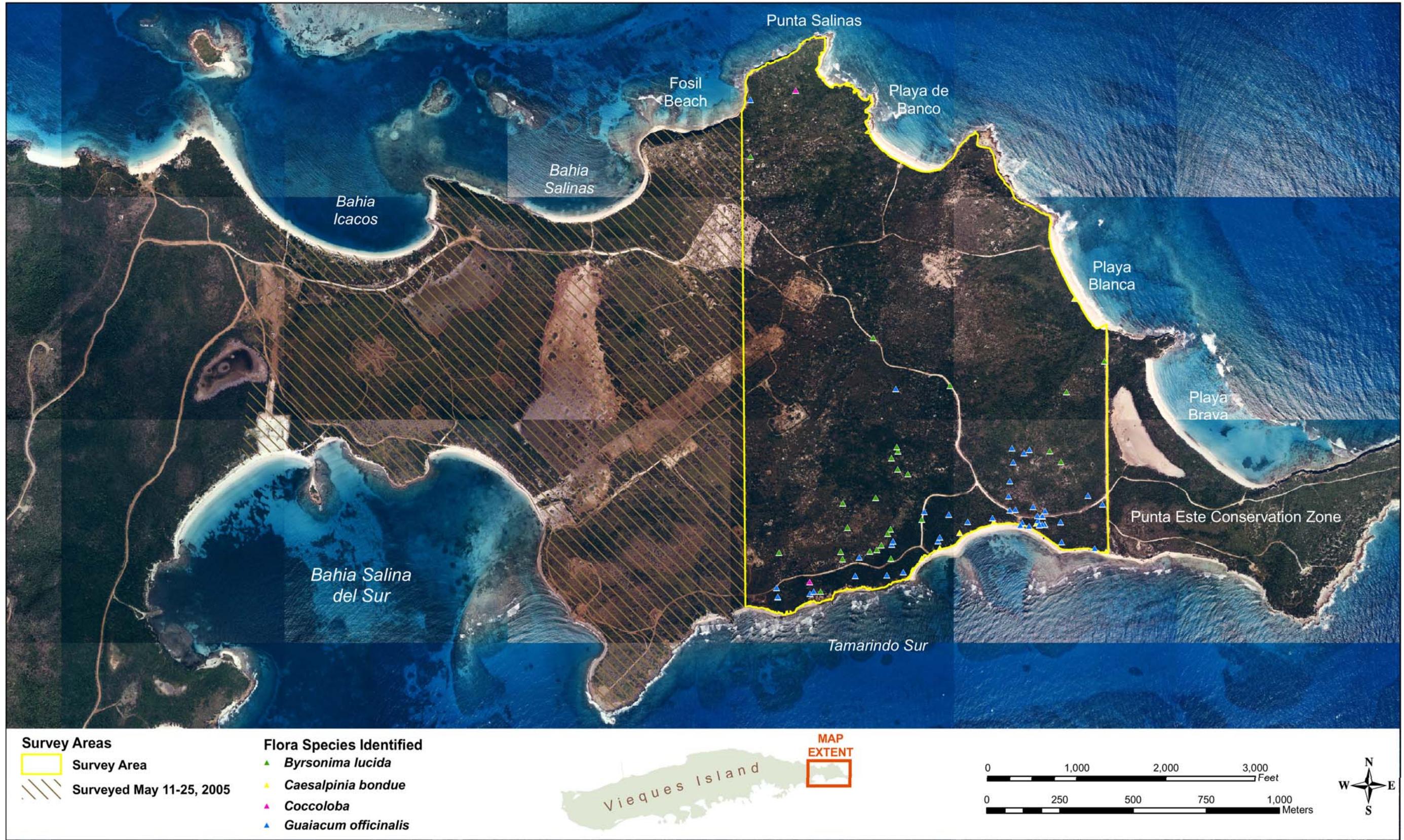


Figure 3. Location of the Four (4) Flora Species Listed by Puerto Rico DNER as Critical Elements during the August 2005 Survey, Vieques, Puerto Rico.

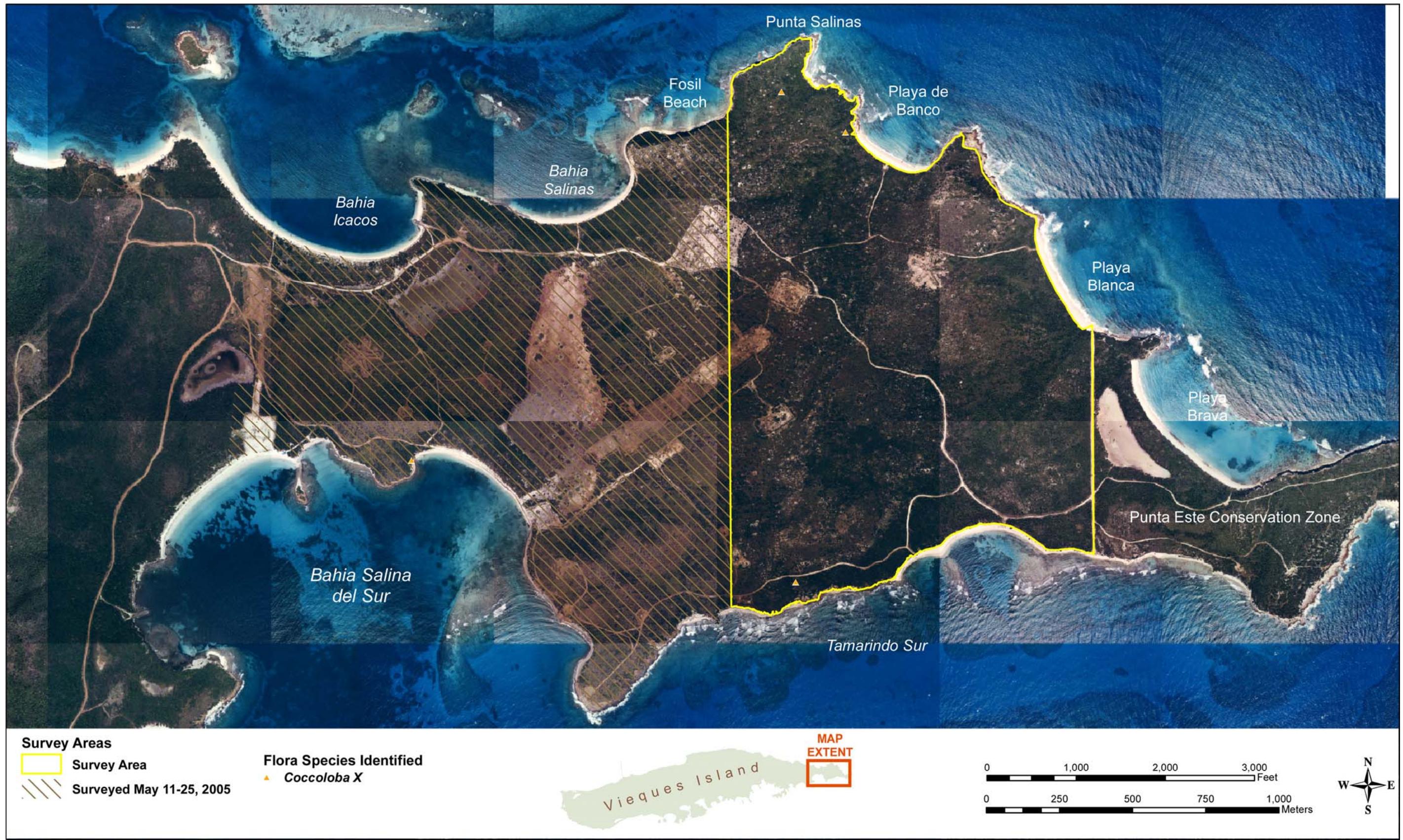


Figure 4. Locations of the New or Hybrid *Coccoloba* Species Documented during the August 2005 Survey, Vieques, Puerto Rico.

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If you have any questions, or need additional information, please do not hesitate to contact me. I can be reached via email (ptrent@geo-marine.com) or telephone (972.423.5480).

Sincerely,



Paula Trent
Project Manager

cc: John Tomik, CH2M Hill
Susana Struve, CH2M Hill

Ref: 35000.32.01

ATTACHMENT A
400-Acre Flora Survey, Vieques, Puerto Rico
August 15 - 31, 2005

| Date | Family Name | Scientific Name | Common Name | Federal Listed Species | | | | State Listed Species | | | | DNER | New Species | UTM Zone 20N, NAD 83 GPS Coordinates |
|--------|----------------|----------------------|--------------|------------------------|---|---|---|----------------------|---|---|---|------|---------------------------|--------------------------------------|
| 15 Aug | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | No GPS | |
| 16 Aug | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 257610 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2007894 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 257610 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2007894 |
| 18 Aug | Polygonaceae | Coccoloba X | | E | T | C | S | E | T | C | S | CE | Poss. new/ Hybrid 1959 | 257982 2007781 |
| 19 Aug | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 257668 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2006225 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 257671 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2006194 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 257671 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2006194 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 257782 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2006202 |
| | Polygonaceae | Coccoloba X | | E | T | C | S | E | T | C | S | CE | | 257782 2006243 |
| 22 Aug | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 257679 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2006346 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 257900 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2006508 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 257900 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2006508 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 257900 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2006427 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 257895 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2006320 |
| 23 Aug | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 258014 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2007074 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 258274 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2006905 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 258274 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2006905 |

E = Endangered Species

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ATTACHMENT A
400-Acre Flora Survey, Vieques, Puerto Rico
August 15 - 31, 2005

| Date | Family Name | Scientific Name | Common Name | Federal Listed Species | | | | State Listed Species | | | | DNER | New Species | UTM Zone 20N, NAD 83 GPS Coordinates |
|--------|----------------|----------------------|--------------|------------------------|---|---|---|----------------------|---|---|---|------|-------------|--------------------------------------|
| 23 Aug | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 258169 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2006448 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 257889 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2006345 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 258012 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2006525 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 258028 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2006365 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 258028 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2006365 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 258013 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2006349 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258178 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2006475 |
| 24 Aug | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 257952 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2006325 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258060 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2006319 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | 3 plants | 258064 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2006366 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258088 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2006898 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258069 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2006377 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 257795 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2006209 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258102 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2006270 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258045 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2006261 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 257938 |
| | Zygophyllaceae | Guaiacum officinalis | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 2006261 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 258061 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2006418 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 258051 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2006404 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | 2 shrubs | 258060 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | | 2006319 |
| | Malpighiaceae | Byrsinima lucida | Candleberry | E | T | C | S | E | T | C | S | CE | 3 shrubs | 258051 |
| | | | | | | | | | | | | | | 2006404 |

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ATTACHMENT A
400-Acre Flora Survey, Vieques, Puerto Rico
 August 15 - 31, 2005

Geo-Marine, Inc.
 550 East 15th Street
 Plano, TX 75074

CH2MHill PO No. 908165
 GMI Project No. 35000.32.01
 Project Manager: Paula Trent

| Date | Grid No. | Family Name | Scientific Name | Common Name | Federal Listed Species | | | | State Listed Species | | | | DNER | New Species | UTM Zone 20N, NAD 83 GPS Coordinates |
|--------|----------|----------------|-----------------------------|--------------|------------------------|---|---|---|----------------------|---|---|---|------|-------------|--------------------------------------|
| 24 Aug | | Malpighiaceae | <i>Byrsinima lucida</i> | Candleberry | E | T | C | S | E | T | C | S | CE | 2 shrubs | 258089 2006822 |
| | | Malpighiaceae | <i>Byrsinima lucida</i> | Candleberry | E | T | C | S | E | T | C | S | CE | 10 shrubs | 258124 2006606 |
| | | Malpighiaceae | <i>Byrsinima lucida</i> | Candleberry | E | T | C | S | E | T | C | S | CE | | 258069 2006661 |
| | | Malpighiaceae | <i>Byrsinima lucida</i> | Candleberry | E | T | C | S | E | T | C | S | CE | 2 shrubs | 258092 2006683 |
| | | Malpighiaceae | <i>Byrsinima lucida</i> | Candleberry | E | T | C | S | E | T | C | S | CE | 2 shrubs | 258088 2006697 |
| | | Malpighiaceae | <i>Byrsinima lucida</i> | Candleberry | E | T | C | S | E | T | C | S | CE | 2 shrubs | 257795 2006209 |
| | | Malpighiaceae | <i>Byrsinima lucida</i> | Candleberry | E | T | C | S | E | T | C | S | CE | | 257818 2006209 |
| | | Fabaceae | <i>Caesalpinia bondue</i> | | E | T | C | S | E | T | C | S | CE | | 258166 2006317 |
| 26 Aug | | Fabaceae | <i>Caesalpinia bondue</i> | | E | T | C | S | E | T | C | S | CE | 2 lg shrubs | 258228 2006353 |
| | | Fabaceae | <i>Caesalpinia bondue</i> | | E | T | C | S | E | T | C | S | CE | Lg patch | 258297 2006402 |
| | | Fabaceae | <i>Caesalpinia bondue</i> | | E | T | C | S | E | T | C | S | CE | Lg patch | 258414 2006435 |
| | | Fabaceae | <i>Caesalpinia bondue</i> | | E | T | C | S | E | T | C | S | CE | | 258560 2006428 |
| | | Fabaceae | <i>Caesalpinia bondue</i> | | E | T | C | S | E | T | C | S | CE | | 258511 2006431 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258511 2006431 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258222 2006375 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258229 2006388 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | 2 plants | 258261 2006463 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258325 2006438 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | 2 plants | 258410 2006449 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | 2 plants | 258470 2006474 |

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ATTACHMENT A
400-Acre Flora Survey, Vieques, Puerto Rico
 August 15 - 31, 2005

Geo-Marine, Inc.
 550 East 15th Street
 Plano, TX 75074

CH2MHill PO No. 908165
 GMI Project No. 35000.32.01
 Project Manager: Paula Trent

| Date | Grid No. | Family Name | Scientific Name | Common Name | Federal Listed Species | | | | State Listed Species | | | | DNER | New Species | UTM Zone 20N, NAD 83 GPS Coordinates |
|--------|----------|----------------|-----------------------------|--------------|------------------------|---|---|---|----------------------|---|---|---|------|-------------|--------------------------------------|
| 29 Aug | | Fabaceae | <i>Caesalpinia bonduc</i> | | E | T | C | S | E | T | C | S | CE | Lg clump | 258582 2006451 |
| | | Malpighiaceae | <i>Byrsinima lucida</i> | Candleberry | E | T | C | S | E | T | C | S | CE | | 258802 2006977 |
| | | Malpighiaceae | <i>Byrsinima lucida</i> | Candleberry | E | T | C | S | E | T | C | S | CE | | 258671 2006876 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258522 2006669 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258566 2006436 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258569 2006423 |
| | | Fabaceae | <i>Caesalpinia bonduc</i> | | E | T | C | S | E | T | C | S | CE | | 258578 2006452 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258481 2006686 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258540 2006679 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258485 2006639 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258472 2006575 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258581 2006423 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258588 2006423 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258579 2006424 |
| | | Fabaceae | <i>Caesalpinia bonduc</i> | | E | T | C | S | E | T | C | S | CE | | 258589 2006424 |
| 30 Aug | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258467 2006522 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258549 2006484 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258590 2006469 |
| | | Malpighiaceae | <i>Byrsinima lucida</i> | Candleberry | E | T | C | S | E | T | C | S | CE | | 258610 2006674 |
| | | Malpighiaceae | <i>Byrsinima lucida</i> | Candleberry | E | T | C | S | E | T | C | S | CE | | 258648 2006637 |

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Geo-Marine, Inc.
550 East 15th Street
Plano, TX 75074

ATTACHMENT A
400-Acre Flora Survey, Vieques, Puerto Rico
August 15 - 31, 2005

CH2MHill PO No. 908165
GMI Project No. 35000.32.01
Project Manager: Paula Trent

| Date | Grid No. | Family Name | Scientific Name | Common Name | Federal Listed Species | | | | State Listed Species | | | | DNER | New Species | UTM Zone 20N, NAD 83 GPS Coordinates |
|--------|----------|----------------|-----------------------------|--------------|------------------------|---|---|---|----------------------|---|---|---|------|-----------------|--------------------------------------|
| 30 Aug | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258489 2006476 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258564 2006453 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258737 2006519 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258643 2006431 |
| 31 Aug | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258758 2006340 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258505 2006422 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | 2 trees | 258535 2006419 |
| | | Fabaceae | <i>Caesalpinia bonduc</i> | | E | T | C | S | E | T | C | S | CE | | 258535 2006419 |
| | | Fabaceae | <i>Caesalpinia bonduc</i> | | E | T | C | S | E | T | C | S | CE | | 258795 2006329 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258645 2006364 |
| | | Fabaceae | <i>Caesalpinia bonduc</i> | | E | T | C | S | E | T | C | S | CE | | 258705 2007194 |
| | | Polygonaceae | <i>Coccoloba X</i> | | E | T | C | S | E | T | C | S | CE | May 2005 survey | 256477 2006684 |
| | | Polygonaceae | <i>Coccoloba X</i> | | E | T | C | S | E | T | C | S | CE | | 257765 2007922 |
| | | Malpighiaceae | <i>Byrsinima lucida</i> | Candleberry | E | T | C | S | E | T | C | S | CE | | 257607 2007699 |
| | | Zygophyllaceae | <i>Guaiacum officinalis</i> | Lignum Vitae | E | T | C | S | E | T | C | S | CE | | 258787 2006489 |

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ATTACHMENT B
LIST OF ALL 257 PLANTS SPECIES RECORDED IN THE DESIGNATED TRANSECTS FORMER NAVAL TRAINING RANGE, VIEQUES
FROM AUGUST 15–31, 2005

| FAMILY | SPECIES | COMMON NAME(s) |
|------------------|---|-----------------------------------|
| MALVACEAE | <i>Abutilon umbellatum</i> (L.) Sweet | Malvavisco cimarrón |
| MIMOSACEAE | <i>Acacia farnesiana</i> (L.) Willd. | Aroma; Casha |
| MIMOSACEAE | <i>Acacia macracantha</i> Humb. & Bonpl. | Tamarindo silvestre; Tamarind |
| MIMOSACEAE | <i>Acacia muricata</i> (L.) Willd. ex L. | Acacia nudosa; Spineless acacia |
| MIMOSACEAE | <i>Acacia retusa</i> (Jacq.) Howard | Acacia zarza |
| MIMOSACEAE | <i>Acacia tortuosa</i> (L.) Willd. | Casia; Twisted acacia |
| EUPHORBIACEAE | <i>Adelia ricinella</i> L. | Escambrón |
| FABACEAE | <i>Aeschynomene americana</i> L. | Moriviví bobo |
| FABACEAE | <i>Alysicarpus vaginalis</i> (L.) DC. | Yerba de contrabando; False money |
| RUTACEAE | <i>Amyris elemifera</i> L. | Cuabilla |
| BORAGINACEAE | <i>Argusia gnaphalodes</i> (L.) Heine | Nigua de playa; Bay lavender |
| EUPHORBIACEAE | <i>Argythamnia candicans</i> Sw. | Plateada |
| EUPHORBIACEAE | <i>Argythamnia fasciculata</i> (Vahl) Muell. Arg. | ---- |
| ARISTOLOCHIACEAE | <i>Aristolochia trilobata</i> L. | Cachimbos |
| CHENOPODIACEAE | <i>Atriplex pentandra</i> (Jacq.) Standley | Garbancillo; Crestedtriplex |
| MALVACEAE | <i>Bastardia viscosa</i> (L.) HBK | Escoba babosa; Viscid mallow |
| EUPHORBIACEAE | <i>Bernardia dichotoma</i> (Willd.) Muell. Arg. | Mierda de gallina |
| AMARANTHACEAE | <i>Blutaparon vermiculare</i> (L.) Mears | Yerba de sal |
| NYCTAGINACEAE | <i>Boerhavia coccinea</i> Mill. | Mata de pavo |
| NYCTAGINACEAE | <i>Boerhavia diffusa</i> L. | Mata pavo; Hog-weed |
| ASTERACEAE | <i>Borreria arborescens</i> (L.) DC. | Clavelón de playa; Sea ox-eye |
| POACEAE | <i>Bothriochloa pertusa</i> (L.) A. Camus | Huracán; Hurricane grass |
| BORAGINACEAE | <i>Bourreria succulenta</i> Jacq. | Palo de vaca |
| POACEAE | <i>Brachiaria fasciculata</i> (Sw.) S. T. Blake | ---- |
| COMBRETACEAE | <i>Bucida buceras</i> L | Úcar |
| CYPERACEAE | <i>Bulbostylis pauciflora</i> (Liebm.) Clarke | ---- |
| BURSERACEAE | <i>Bursera simaruba</i> (L.) Sarg. | Almácigo |
| MALPIGHIACEAE | <i>Byrsonima lucida</i> (Miller) L. C. Rich. | Aceituna; Candle berry |
| CAESALPINACEAE | <i>Caesalpinia bonduc</i> (L.) Roxb. | Haba de San Antonio; Gray nickers |
| CAESALPINACEAE | <i>Caesalpinia ciliata</i> (Berg. ex Wikstr.) Urban | Mato amarillo; Yellow nickers |
| BRASSICACEAE | <i>Cakile lanceolata</i> (Willd.) O. E. Schulz | Mostacilla; Sea-rocket |

ATTACHMENT B
LIST OF ALL 257 PLANTS SPECIES RECORDED IN THE DESIGNATED TRANSECTS FORMER NAVAL TRAINING RANGE, VIEQUES
FROM AUGUST 15–31, 2005

| FAMILY | SPECIES | COMMON NAME(s) |
|------------------|--|------------------------------------|
| ASCLEPIADACEAE | <i>Calotropis procera</i> (Ait.) Ait. f. | Algodón de seda; Giant milkweed |
| FABACEAE | <i>Canavalia rosea</i> (Sw.) DC. | Canavalia; Bay-bean |
| CANELLACEAE | <i>Canella winteriana</i> (L.) Gaertn. | Barbasco; Canelle |
| CAPPARACEAE | <i>Capparis cynophallophora</i> L. | Bejuco inglés; Black wattle |
| CAPPARACEAE | <i>Capparis flexuosa</i> (L.) L. | Palinguán; Caper tree |
| CAPPARACEAE | <i>Capparis hastata</i> Jacq. | Burro; Broad-leaved caper |
| CAPPARACEAE | <i>Capparis indica</i> (L) Fawc. & Rendle | Sapo prieto; Linguam |
| SCROPHULARIACEAE | <i>Capraria biflora</i> L. | Té del país; Goat weed |
| SAPINDACEAE | <i>Cardiospermum microcarpum</i> HBK | Farolito; Ballon vine |
| LAURACEAE | <i>Cassytha filiformis</i> L. | Bejuco dorado; Love vine |
| RUBIACEAE | <i>Catesbeia parviflora</i> Sw. | ---- |
| AMARANTHACEAE | <i>Celosia nitida</i> Vahl | ---- |
| POACEAE | <i>Cenchrus ciliaris</i> L. | Yerba de salinas |
| POACEAE | <i>Cenchrus echinatus</i> L. | Abrojo; Bur grass |
| POACEAE | <i>Cenchrus incertus</i> M. A. Curtis | Abrojo de dunas; Sand bur grass |
| POACEAE | <i>Cenchrus myosuroides</i> HBK. | Abrojo de espiga; Spiked-bur grass |
| FABACEAE | <i>Centrosema pubescens</i> Benth. | Flor de conchitas; Butterfly pea |
| FABACEAE | <i>Centrosema virginianum</i> (L.) Benth. | Conchita de Virginia |
| CAESALPINACEAE | <i>Chamaecrista portoricensis</i> (Urban) Cook & Collins | ---- |
| EUPHORBIACEAE | <i>Chamaesyce articulata</i> (Aubl.) Britton | ---- |
| EUPHORBIACEAE | <i>Chamaesyce hyssopifolia</i> (L.) Small | Lechera |
| EUPHORBIACEAE | <i>Chamaesyce mesembryanthemifolia</i> (Jacq.) Dugand | ---- |
| EUPHORBIACEAE | <i>Chamaesyce prostrata</i> (Ait.) Small | Lechecillo |
| EUPHORBIACEAE | <i>Chamaesyce serpens</i> (HBK) Small | Sanguinaria |
| EUPHORBIACEAE | <i>Chamaesyce turpinii</i> (Boiss.) Millsp. | ---- |
| POACEAE | <i>Chloris inflata</i> Link | Horquetilla morada; Blue grass |
| CHAROPHYCEAE | <i>Chara</i> sp. | Yerba de pato |
| POACEAE | <i>Chloris petraea</i> Sw. | ---- |
| POACEAE | <i>Chloris radiata</i> (L.) Sw. | Grama de costa; Plush-grass |
| VITACEAE | <i>Cissus trifoliata</i> L. | Caro costero |
| VERBENACEAE | <i>Citharexylum fruticosum</i> L. | Palo de guitarra; Old woman bitter |

ATTACHMENT B
LIST OF ALL 257 PLANTS SPECIES RECORDED IN THE DESIGNATED TRANSECTS FORMER NAVAL TRAINING RANGE, VIEQUES
FROM AUGUST 15–31, 2005

| FAMILY | SPECIES | COMMON NAME(s) |
|----------------|---|-------------------------------|
| VERBENACEAE | <i>Clerodendron aculeatum</i> (L.) Schlecht. | Botón de oro; Crab prickly |
| FABACEAE | <i>Clitoria ternatea</i> L. | Bejuco de conchitas |
| POLYGONACEAE | <i>Coccoloba krugii</i> Lindau in Engler | ---- |
| POLYGONACEAE | <i>Coccoloba microstachya</i> Willd. | Uverillo |
| POLYGONACEAE | <i>Coccoloba uvifera</i> (L.) L. | Uva de playa; Sea grape |
| POLYGONACEAE | <i>Coccoloba</i> sp. (new / hybrid?) | ---- |
| ARECACEAE | <i>Cocos nucifera</i> L. | Cocotero; Coconut palm |
| RHAMNACEAE | <i>Colubrina arborescens</i> (Mill.) Sarg. | Sangunaria; Greenheart |
| RHAMNACEAE | <i>Colubrina elliptica</i> (Sw.) Briz. & Stern* | Catiere; Naked wood* |
| COMMELINACEAE | <i>Commelina diffusa</i> Burm. f. | Cohitre; Blue day flower |
| ANACARDIACEAE | <i>Comocladia dodonaei</i> (L.) Urban | Chicharrón; Cock's spur |
| COMBRETACEAE | <i>Conocarpus erecta</i> L. | Mangle botón; Botton tree |
| CONVOLVULACEAE | <i>Convolvulus nodiflorus</i> Desr. | Aguinaldo blanco |
| TILIACEAE | <i>Corchorus hirsutus</i> L. | Malvaté |
| TILIACEAE | <i>Corchorus siliquosus</i> L. | Escoba blanca |
| BORAGINACEAE | <i>Cordia collococca</i> L. | ---- |
| BORAGINACEAE | <i>Cordia rickseckeri</i> Millsp. | Palo de lija; |
| BORAGINACEAE | <i>Cordia stenophylla</i> Alain* | Basora* |
| CELASTRACEAE | <i>Crossopetalum rhacoma</i> Crantz | Coral; Poison cherry |
| FABACEAE | <i>Crotalaria lotifolia</i> L. | Cascabelillo axilar |
| FABACEAE | <i>Crotalaria retusa</i> L. | Cascabelillo |
| EUPHORBIACEAE | <i>Croton astroites</i> Dryand. | Maná |
| EUPHORBIACEAE | <i>Croton betulinus</i> Vahl | ---- |
| EUPHORBIACEAE | <i>Croton discolor</i> Willd. | Lechecillo |
| EUPHORBIACEAE | <i>Croton lobatus</i> L. | Croto lobulado |
| CONVOLVULACEAE | <i>Cuscuta americana</i> L. | Bejuco de Mona; Dodder |
| CYPERACEAE | <i>Cyperus brunneus</i> Sw. | ---- |
| CYPERACEAE | <i>Cyperus compressus</i> L. | ---- |
| CYPERACEAE | <i>Cyperus ligularis</i> L. | ---- |
| CYPERACEAE | <i>Cyperus sphacelatus</i> Rottb. | ---- |
| POACEAE | <i>Dactyloctenium aegyptium</i> (L.) Beauv. | Yerba egipcia; Egyptian grass |

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FROM AUGUST 15–31, 2005

| FAMILY | SPECIES | COMMON NAME(s) |
|----------------|---|---------------------------------|
| FABACEAE | <i>Dalbergia ecastaphyllum</i> (L.) Taub. | Maraimaray |
| EUPHORBIACEAE | <i>Dalechampia scandens</i> L. | ---- |
| SOLANACEAE | <i>Datura stamonium</i> L. | Belladona de pobre; Jimson weed |
| POACEAE | <i>Digitaria bicornis</i> (L.) R. & S. | ---- |
| POACEAE | <i>Digitaria ciliaris</i> (Retz.) Koeler | Pata de gallina; Crab grass |
| POACEAE | <i>Digitaria insularis</i> (L) Mez | Zorra; Silky grass |
| RUBIACEAE | <i>Diodia serrulata</i> (Beauv.) G. Taylor | ---- |
| POACEAE | <i>Distichlis spicata</i> (L.) Greene | Grama de costa |
| BIGNONIACEAE | <i>Distinctis lactiflora</i> (Vahl) DC. | Liana fragante |
| APOCYNACEAE | <i>Echites agglutinatus</i> Jacq. | Bejuco lechoso |
| CELASTRACEAE | <i>Elaeodendrum xylocarpum</i> (Vent.) DC. | Coscorrón; Marble-tree |
| CYPERACEAE | <i>Eleocharis mutata</i> (L.) Roem. & Schult. | ---- |
| ASTERACEAE | <i>Emilia fosbergii</i> Nicolson | Clavelito colorado; |
| ORCHIDACEAE | <i>Encyclia macconnelliae</i> Sauleda | ---- |
| RUBIACEAE | <i>Erithalis fruticosa</i> L. | Jayajabico; Black torch |
| RUBIACEAE | <i>Ernodea littoralis</i> Sw. | ---- |
| MYRTACEAE | <i>Eugenia axillaris</i> (Sw.) Willd. | Grajo; Krum-berry |
| MYRTACEAE | <i>Eugenia cordata</i> (Sw.) DC.* | Lath berry* |
| MYRTACEAE | <i>Eugenia foetida</i> Pers. | Anhuila; Spanish stopper |
| EUPHORBIACEAE | <i>Euphorbia petiolaris</i> Sims | Indio desnudo; Manchineel berry |
| CONVOLVULACEAE | <i>Evolvulus convolvuloides</i> Stearn | ---- |
| CONVOLVULACEAE | <i>Evolvulus aff. E. sericeus</i> Sw. | ---- |
| RUBIACEAE | <i>Exostema caribaeum</i> (Jacq.) Roem & Schult. | Albarillo; Prince-wood |
| MORACEAE | <i>Ficus citrifolia</i> P. Miller | Jagüeillo; Boislaglu |
| CYPERACEAE | <i>Fimbristylis cymosa</i> R. Br. subsp. <i>spathacea</i> (Roth) Koy. | ---- |
| CYPERACEAE | <i>Fimbristylis ferruginea</i> (L.) Vahl | ---- |
| CYPERACEAE | <i>Fimbristylis spadicea</i> (L.) Vahl | ---- |
| OLEACEAE | <i>Forestiera segregata</i> (Jacq.) Krug & Urban | Florida privet, Ink-bush |
| FABACEAE | <i>Galactia dubia</i> DC. | ---- |
| FABACEAE | <i>Galactia striata</i> (Jacq.) Urban | ---- |
| CLUSIACEAE | <i>Garcinia portoricensis</i> (Urban) Alain | Guayabacoa, Palo de cruz |

ATTACHMENT B

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FROM AUGUST 15–31, 2005**

| FAMILY | SPECIES | COMMON NAME(s) |
|-----------------|---|--------------------------------------|
| AMARANTHACEAE | <i>Gomphrena serrata</i> L. | Arrasa con todo; siempreviva |
| MALVACEAE | <i>Gossypium barbadense</i> L. | Algodón; Wild cotton |
| ZYGOHYLLACEAE | <i>Guaiacum officinale</i> L. | Guayacán; Lignum vitae |
| RUBIACEAE | <i>Guettarda elliptica</i> Sw. | Cucubano liso; Velvet seed |
| RUBIACEAE | <i>Guettarda odorata</i> (Jacq.) Lam. | Cucubano de Vieques; Black berry |
| CELASTRACEAE | <i>Gyminda latifolia</i> (Sw.) Urb. | Araña; False boxwood |
| EUPHORBIACEAE | <i>Gymnanthes lucida</i> Sw. | Yaití; Ramón; Crabwood |
| STERCULIACEAE | <i>Helicteres jamaicensis</i> Jacq. | Cuernecillo; Cowbush |
| BORAGINACEAE | <i>Heliotropium curassavicum</i> L. | Cotorra de playa; Seaside heliotrope |
| BORAGINACEAE | <i>Heliotropium indicum</i> L. | Cotorrera; Indian heliotrope |
| MALVACEAE | <i>Herissantia crispa</i> (L.) Brizicki* | ---- |
| HIPPOCRATEACEAE | <i>Hippocratea volubilis</i> L. | Bejuco prieto |
| EUPHORBIACEAE | <i>Hippomane mancinella</i> L. | Manzanillo; Manchineel |
| FABACEAE | <i>Indigofera suffruticosa</i> Miller | Añil; Índigo |
| CONVOLVULACEAE | <i>Ipomoea alba</i> L. | Bejuco de vaca; Moon-vine |
| CONVOLVULACEAE | <i>Ipomoea hederifolia</i> L. | Combustera |
| CONVOLVULACEAE | <i>Ipomoea indica</i> (Burm. f.) Merr. | Bejuco de gloria |
| CONVOLVULACEAE | <i>Ipomoea pes-caprae</i> (L.) R. Br. | Bejuco de playa; Bay hops |
| CONVOLVULACEAE | <i>Ipomoea steudelii</i> Millsp. | ---- |
| CONVOLVULACEAE | <i>Ipomoea violacea</i> L. | Bejuco de luna; Coast moon-vine |
| CONVOLVULACEAE | <i>Jacquemontia havanensis</i> (Jacq.) Urban | Aguinaldo de costa |
| CONVOLVULACEAE | <i>Jacquemontia pentanthos</i> (Jacq.) G. Don | Agunaldo azul |
| THEOPHRASTACEAE | <i>Jacquinia armillaris</i> Jacq. | Azúcares |
| THEOPHRASTACEAE | <i>Jacquinia berteroii</i> Spreng. | Mercocha |
| EUPHORBIACEAE | <i>Jatropha gossypiifolia</i> L. | Higuereta cimarrona |
| KRAMERIACEAE | <i>Krameria ixine</i> L.* | Abrojo colorado* |
| RHAMNACEAE | <i>Krugiodendron ferreum</i> (Vahl) Urban | Bariaco; Black iron-wood |
| VERBENACEAE | <i>Lantana involucrata</i> L. | Santa María; Button sage |
| POACEAE | <i>Lasiacis divaricata</i> (L.) Hitchc. | ---- |
| MIMOSACEAE | <i>Leucaena leucocephala</i> (Lam.) De Wit | Acacia pálida; Wild tamarind |
| VERBENACEAE | <i>Lippia nodiflora</i> (L.) Michx. | Cidrón; Cape-wood |

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|----------------|---|---|
| ONAGRACEAE | <i>Ludwigia erecta</i> (L.) Hara | Yerba de clavo acuática; Yerba de jicotea |
| ONAGRACEAE | <i>Ludwigia octovalvis</i> (Jacq.) Raven | Cangá; Primrose willow |
| BIGNONIACEAE | <i>Macfadyena unguis-cati</i> (L.) A. Gentry | Bejuco de gato; Cat's claw |
| FABACEAE | <i>Macroptilium lathyroides</i> (L.) Urban | Habichuela parada; Wild bush bean |
| MALVACEAE | <i>Malacra alceifolia</i> Jacq. | Malva de caballo; Bastard okra |
| MALVACEAE | <i>Malvastrum corchorifolium</i> (Desr.) Britton in Small | ---- |
| ASCLEPIADACEAE | <i>Matelea maritima</i> (Jacq.) Woodson | Guanabanilla cimarrona; Beach milk-vine |
| CELASTRACEAE | <i>Maytenus cf. laevigata</i> (Vahl) Griseb. ex Eggers | Alfilerillo; Bois flamant |
| ASTERACEAE | <i>Melanthera aspera</i> (Jacq.) Small | Salaíllo |
| SAPINDACEAE | <i>Melicoccus bijugatus</i> Jacq. | Quenepa; Ginep |
| CACTACEAE | <i>Melocactus intortus</i> (Mill.) Urb. | Melón de costa; Turk's cap |
| STERCULIACEAE | <i>Melochia nodiflora</i> Sw. | Bretónica prieta |
| STERCULIACEAE | <i>Melochia pyramidata</i> L. | Bretónica piramidal |
| STERCULIACEAE | <i>Melochia tomentosa</i> L. | Bretónica afelpada |
| CONVOLVULACEAE | <i>Merremia dissecta</i> (Jacq.) Hall. f. | Noyó; Know-you |
| CONVOLVULACEAE | <i>Merremia quinquefolia</i> (L) Hall. f. | Batatilla blanca |
| ASCLEPIADACEAE | <i>Metastelma decipiens</i> Schlecht. | ---- |
| RUBIACEAE | <i>Morinda citrifolia</i> L. | Gardenia hedionda; Indian mulberry |
| ACANTHACEAE | <i>Oplonia spinosa</i> (Jacq.) Raf. | Espinosa; Prickly bush |
| CACTACEAE | <i>Opuntia dillenii</i> (Ker-Gawl.) Haw. | Higo de mar; Prickly pear |
| POACEAE | <i>Panicum maximum</i> Jacq. | Yerba de guinea; Guinea grass |
| POACEAE | <i>Paspalum distichum</i> L. | ---- |
| POACEAE | <i>Paspalum fimbriatum</i> Kunth | Pata de conejo |
| POACEAE | <i>Paspalum laxum</i> Lam. | Matojo de arena |
| POACEAE | <i>Paspalum pleostachyum</i> Doell | ---- |
| POACEAE | <i>Paspalum vaginatum</i> Sw. | ---- |
| PASSIFLORACEAE | <i>Passiflora suberosa</i> L. | Flor de pasión |
| ASTERACEAE | <i>Pectis humifusa</i> Sw. | Yerba de San Juan |
| APOCYNACEAE | <i>Pentalinon luteum</i> (L.) Hansen & Wunderlin | Babeiro amarillo |
| FABACEAE | <i>Pictetia aculeata</i> (Vahl) Urban | Tachuelo; Fustic |
| CACTACEAE | <i>Pilosocereus royenii</i> (L.) Byles & Rowley | Dildo |

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|----------------|---|---------------------------------|
| FABACEAE | <i>Piscidia carthagenensis</i> Jacq. | Ventura; Fish poison |
| NYCTAGINACEAE | <i>Pisonia subcordata</i> Sw. | Corcho blanco; Water mampoo |
| MIMOSACEAE | <i>Pithecellobium unguis-cati</i> (L.) Mart. | Escambrón colorado; Black bean |
| APOCYNACEAE | <i>Plumeria alba</i> L. | Alhelí; Milk tree |
| EUPHORBIACEAE | <i>Poinsettia heterophylla</i> (L.) Klotzsch & Garcke | Acerca amor |
| PORTULACACEAE | <i>Portulaca oleracea</i> L. | Verdolaga; Purs lane |
| PORTULACACEAE | <i>Portulaca pilosa</i> L. | Don Diego |
| PORTULACACEAE | <i>Portulaca rubricaulis</i> HBK. | ---- |
| PORTULACACEAE | <i>Portulaca teretifolia</i> Kunth | ---- |
| MIMOSACEAE | <i>Prosopis juliflora</i> (Sw.) DC. | Mesquite |
| RUBIACEAE | <i>Randia aculeata</i> L. | Tintillo; Ink-berry |
| APOCYNACEAE | <i>Rauvolfia nitida</i> Jacq. | Cachimbo; Milk bush |
| APOCYNACEAE | <i>Rauvolfia viridis</i> Willd. ex Roem. & Schultes | Bitter bush |
| RHAMNACEAE | <i>Reynosia uncinata</i> Urban | Cascarroya |
| FABACEAE | <i>Rhynchosia minima</i> (L.) DC. | Frijolillo |
| FABACEAE | <i>Rhynchosia reticulata</i> (Sw.) DC. | Frijolillo |
| PHYTOLACCACEAE | <i>Rivina humilis</i> L. | Carmín; Cat's blood |
| ACANTHACEAE | <i>Ruellia tuberosa</i> L. | Saltaperico; many-roots |
| GOODENIACEAE | <i>Scaevola plumieri</i> (L.) Vahl. | Bosborin; Ink berry |
| FLACOURTIACEAE | <i>Samyda dodecandra</i> Jacq. | Guayabilla |
| CELASTRACEAE | <i>Schaefferia frutescens</i> Jacq. | Cafeíllo; Florida boxwood |
| OLACACEAE | <i>Schoepfia obovata</i> C. Wright in Sauv. | Araña |
| CYPERACEAE | <i>Scleria lithosperma</i> (L.) Sw. | ---- |
| RUBIACEAE | <i>Scolosanthus versicolor</i> Vahl | Alfiler |
| EUPHORBIACEAE | <i>Securinega acidoton</i> (L.) Fawcett & Rendle | ---- |
| FABACEAE | <i>Sesbania sericea</i> (Willd.) Link | Papagayo |
| AIZOACEAE | <i>Sesuvium portulacastrum</i> (L.) L. | ---- |
| POACEAE | <i>Setaria setosa</i> (Sw.) Scribn. | Yerba suave |
| MALVACEAE | <i>Sida ciliaris</i> L. | Escoba peluda, Escoba pestañosa |
| MALVACEAE | <i>Sida cordifolia</i> L. | Escoba acorazonada |
| MALVACEAE | <i>Sida rhombifolia</i> L. | Escoba colorada |

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|----------------|--|--------------------------------------|
| MALVACEAE | <i>Sida spinosa</i> L. | Escoba espinosa |
| MALVACEAE | <i>Sidastrum multiflorum</i> (Jacq.) Fryxell | ---- |
| SAPOTACEAE | <i>Sideroxylon obovatum</i> Lam. | Alquitrán; Break hill |
| SAPOTACEAE | <i>Sideroxylon salicifolium</i> (L.) Lam. | Sabina; Willow bustic |
| SOLANACEAE | <i>Solanum lanceifolium</i> Jacq. | ---- |
| ASTERACEAE | <i>Sonchus oleraceus</i> L. | Cerraja |
| POACEAE | <i>Spartina patens</i> (Ait.) Muhl. | Yerba de sal; Salt grass |
| RUBIACEAE | <i>Spermacoce verticillata</i> L. | Botón blanco |
| LOGANIACEAE | <i>Spigelia anthelmia</i> L. | Lombricera; Waterweed |
| POACEAE | <i>Sporobolus indicus</i> (L.) R. Br. | Cerillo; Rush-grass |
| POACEAE | <i>Sporobolus jacquemontii</i> Kunth | Pelo de burro |
| POACEAE | <i>Sporobolus virginicus</i> (L.) Kunth | Matojo de burro; Sea-shore rushgrass |
| VERBENACEAE | <i>Stachytarpheta jamaicensis</i> (L.) Vahl | Bretónica |
| VERBENACEAE | <i>Stachytarpheta strigosa</i> Vahl | Bretónica de costa |
| MALPIGHIAEAE | <i>Stigmaphyllon emarginatum</i> (Cav.) A. Juss. | Bejuco de San Pedro |
| RUBIACEAE | <i>Strumpfia maritima</i> Jacq. | Lirio |
| FABACEAE | <i>Stylosanthes hamata</i> (L.) Taubert in Verh. | Zarzabacoa enana; Pencil flower |
| CONVOLVULACEAE | <i>Stictocardia tilifolia</i> (Desr.) Hallier f. | Bejuco de puerco |
| SIMAROUBACEAE | <i>Suriana maritima</i> L. | Guitarán; Bay cedar |
| ASTERACEAE | <i>Synedrella nodiflora</i> (L.) Gaertn. | Carbatana; Nodeweed |
| BIGNONIACEAE | <i>Tabebuia heterophylla</i> (DC.) Britton | Roble |
| CAESALPINACEAE | <i>Tamarindus indica</i> L. | Tamarindo; Tamarind |
| FABACEAE | <i>Tephrosia cinerea</i> (L.) Pers. | Añil cenizo |
| FABACEAE | <i>Teramnus labialis</i> (L. f.) Sprengel | Frijolillo |
| COMBRETACEAE | <i>Terminalia catappa</i> L. | Almendra; Indian almond |
| MALVACEAE | <i>Thespesia populnea</i> (L.) Soland ex Correa | Emajagüilla; Cork tree |
| ARECACEAE | <i>Thrinax morrisii</i> H. Wendl. | Palma de escoba; Pandereta |
| BROMELIACEAE | <i>Tillandsia</i> sp. | ---- |
| BORAGINACEAE | <i>Tournefortia microphylla</i> Bertero ex Spreng. | ---- |
| BORAGINACEAE | <i>Tournefortia volubilis</i> L. | Nigua enredadera |
| EUPHORBIACEAE | <i>Tragia volubilis</i> L. | Pringamoza; Stinging vine |

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|-------------|--|-------------------------------------|
| AIZOACEAE | <i>Trianthema portulacastrum</i> L. | Verdolaga de hoja ancha |
| POACEAE | <i>Tricholaena repens</i> (Willd.) Hitchc. | Yerba rosada |
| ASTERACEAE | <i>Tridax procumbens</i> L. | Pancha, Tridax |
| TURNERACEAE | <i>Turnera diffusa</i> Willd. ex Schult. | Damiana |
| POACEAE | <i>Uniola virgata</i> (Poir.) Griseb. | Lágrima de San Pedro |
| FABACEAE | <i>Vigna luteola</i> (Jacq.) Benth. | Frijol silvestre |
| OLACACEAE | <i>Ximenia americana</i> L. | Ciruelo de la Florida; Florida plum |
| RUTACEAE | <i>Zanthoxylum flavum</i> Vahl.* | Aceitillo; Yellow sander* |
| RHAMNACEAE | <i>Ziziphus rignonii</i> Delp. | Aprín de costa |

*New records for Vieques. Includes an interesting fresh water algae (*Charophyta*) occurring in bomb craters.